

VANGUARD[®]

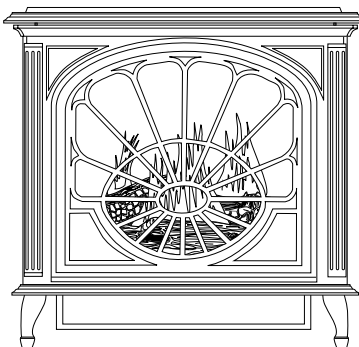
AMITY[™] (VENT-FREE)

NATURAL GAS STOVE HEATER

OWNER'S OPERATION AND INSTALLATION MANUAL

AMITY[™] Stove Model Chassis With SVYD18N Variable Manually-Controlled Gas Log Heater (Burner System For Amity Stove).

SCIVFC - Charcoal
SCIVFB - Azure Blue
SCIVFG - Hunter Green
SCIVFR - Burgundy Red



WARNING: The SVYD18N vent-free gas log heater is only approved for use in the Amity[™] SCIV(*) series stove models.

(* Indicates Color Suffix Designation)

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

— Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

— **WHAT TO DO IF YOU SMELL GAS**

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

— Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

WARNING: This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to *Air for Combustion and Ventilation* section in this manual.



Patent Pending

Save this manual for future reference.

This appliance may be installed in an aftermarket* manufactured (mobile) home, where not prohibited by state or local codes. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.

* Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer

CONTENTS

SECTION	PAGE
Safety Information	2
Product Identification	4
Local Codes	4
Product Features	4
Air for Combustion and Ventilation	5
Installing	8
Check Gas Type	8
Clearances to Combustibles (Vent-Free Operation Only)	8
Stove Cavity Assembly	9
Installing Gas Log Heater Into Stove	13
Connecting to Gas Supply	14
Checking Gas Connections	16
Operating Heater	18
Inspecting Burners	20
Cleaning and Maintenance	21
Troubleshooting	21
Technical Service	25
Specifications	25
Service Hints	25
Replacement Parts	25
Illustrated Parts Lists	26-29
Accessory	30
Warranty Information	Back Cover

SAFETY INFORMATION

WARNINGS

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this heater. Improper use of this heater can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon monoxide poisoning.

DANGER

Carbon monoxide poisoning may lead to death!

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Have heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Natural Gas: Natural gas is odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.

Make certain you read and understand all Warnings. Keep this manual for reference. It is your guide to safe and proper operation of this heater.

Safety Information continues on next page

SAFETY INFORMATION

Continued

WARNINGS *Continued*

WARNING: Any change to this heater or its controls can be dangerous.

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.
2. If you smell gas
 - shut off gas supply
 - do not try to light any appliance
 - do not touch any electrical switch; do not use any phone in your building
 - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
 - if you cannot reach your gas supplier, call the fire department
3. This heater shall not be installed in a bedroom or bathroom.
4. Never install the heater
 - in a recreational vehicle
 - where curtains, furniture, clothing, or other flammable objects are less than the minimum clearances to combustibles (see page 8)
 - in high traffic areas
 - in windy or drafty areas
5. Do not use this stove as a wood burning fireplace. Use only model SVYD18N vent-free gas log heater.
6. Do not add extra logs or ornaments such as pine cones, vermiculite, or rock wool. Using these added items can cause sooting.
7. This log heater is designed to be smokeless. If logs ever appear to smoke, turn off heater and call a qualified service person. *Note:* During initial operation, slight smoking could occur due to log curing and heater burning manufacturing residues.
8. Do not allow fans to blow directly into the stove. Avoid any drafts that alter burner flame patterns. Ceiling fans can create drafts that alter burner flame patterns. Altered burner patterns can cause sooting.
9. Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.
10. This heater needs fresh, outside air ventilation to run properly. This heater has an oxygen depletion sensor (ODS) pilot light safety system. The ODS shuts down the heater if not enough fresh air is available. See *Air for Combustion and Ventilation*, pages 5 through 7. If heater keeps shutting off, see *Troubleshooting*, pages 21 through 24.
11. Do not run heater
 - where flammable liquids or vapors are used or stored
 - under dusty conditions
12. Do not use this stove to cook food or burn paper or other objects.
13. Never place any objects on the stove.
14. Stove becomes very hot when running heater. Keep children and adults away from hot surface to avoid burns or clothing ignition. Heater will remain hot for a time after shutdown. Allow surface to cool before touching.
15. Carefully supervise young children when they are in the room with heater.
16. Do not use heater if any part has been exposed to or under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
17. Do not operate heater if any log is broken. Do not operate heater if a log is chipped (dime-sized or larger).
18. Turn heater off and let cool before servicing. Only a qualified service person should service and repair heater.
19. Operating heater above elevations of 4,500 feet could cause pilot outage.

PRODUCT IDENTIFICATION

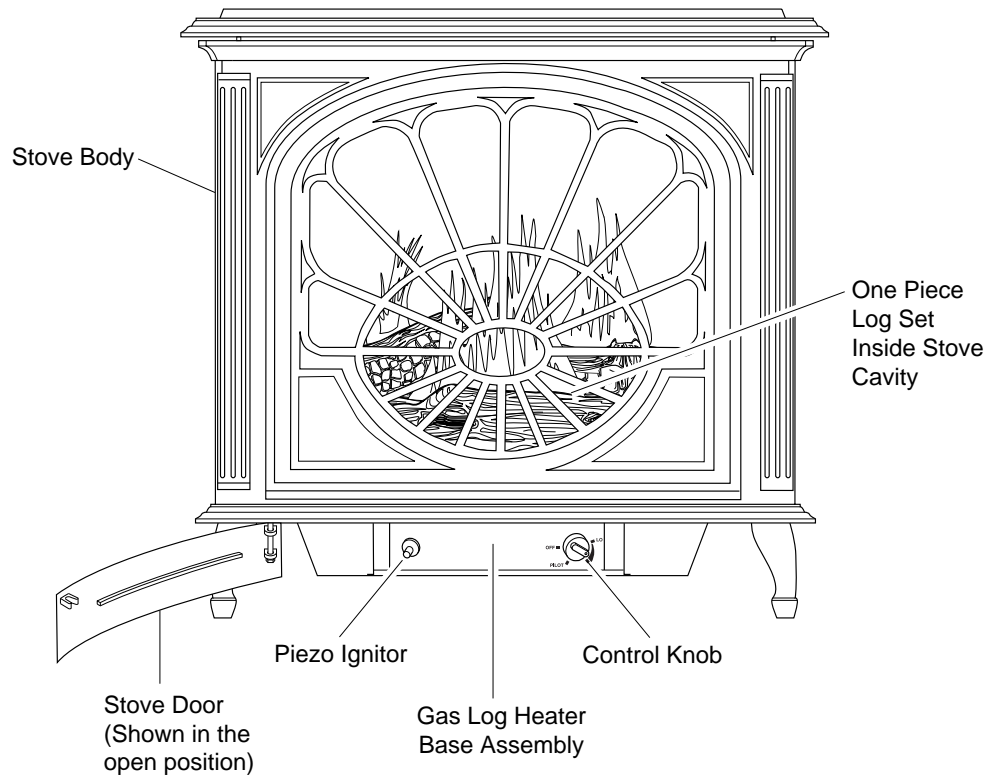


Figure 1 - Amity™ Stove Cabinet Model SCIVF(*) with Amity™ Gas Log Heater Model SVYD18N (* Indicates Color Suffix Designation)

LOCAL CODES

Install and use heater with care. Follow all local codes. In the absence of local codes, use the latest edition of The National Fuel Gas Code ANSI Z223, also known as NFPA 54*.

*Available from: American National Standards Institute, Inc.
1430 Broadway
New York, NY 10018
National Fire Protection Association, Inc.
Batterymarch Park
Quincy, MA 02269

PRODUCT FEATURES

Operation

This heater is clean burning. It requires no outside venting. There is no heat loss out a vent or up a chimney. Heat is generated by realistic, dancing yellow flames. This heater is designed for vent-free operation. State and local codes in some areas prohibit the use of vent-free heaters.

Safety Pilot

This heater has a pilot with an Oxygen Depletion Sensor Shutoff System (ODS). The ODS/pilot is a required feature for vent-free room heaters. The ODS/pilot shuts off the heater if there is not enough fresh air.

Piezo Ignition System

This heater has a piezo ignitor. This system requires no matches, batteries, or other sources to light heater.

AIR FOR COMBUSTION AND VENTILATION

WARNING

This heater shall not be installed in a confined space unless provisions are provided for adequate combustion and ventilation air. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

Today's homes are built more energy efficient than ever. New materials, increased insulation, and new construction methods help reduce heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

While it is good to make your home energy efficient, your home needs to breathe. Fresh air must enter your home. All fuel-burning appliances need fresh air for proper combustion and ventilation.

Exhaust fans, fireplaces, clothes dryers, and fuel burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will insure proper venting of vented fuel-burning appliances.

PROVIDING ADEQUATE VENTILATION

The following is excerpts from *National Fuel Gas Code. NFPA 54/ANSI Z223.1, Section 5.3, Air for Combustion and Ventilation.*

All spaces in homes fall into one of the three following ventilation classifications:

1. Unusually Tight Construction; 2. Unconfined Space; 3. Confined Space.

The information on pages 5 through 7 will help you classify your space and provide adequate ventilation.

Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

Unusually tight construction is defined as construction where:

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm (6×10^{-11} per $\text{pa} \cdot \text{sec} \cdot \text{m}^2$) or less with openings gasketed or sealed *and*
- b. weather stripping has been added on operable windows and doors *and*
- c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See *Ventilation Air From Outdoors*, page 7.

If your home does not meet all of the three criteria above, proceed to page 6.

Confined and Unconfined Space

The National Fuel Gas Code (*ANSI Z223.1, 1992 Section 5.3*) defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu per hour (4.8 m^3 per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 Btu per hour (4.8 m^3 per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed*, through openings not furnished with doors, are considered a part of the unconfined space.

* Adjoining rooms are communicating only if there are doorless passageways or ventilation grills between them.

Continued

AIR FOR COMBUSTION AND VENTILATION

Continued

DETERMINING AIR FLOW FOR HEATER LOCATION

Determining if You Have a Confined or Unconfined Space

Use this work sheet to determine if you have a confined or unconfined space.

Space: Includes the room in which you will install heater plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1. Determine the volume of the space (length x width x height).

Length x Width x Height = _____ cu. ft. (volume of space)

Example: Space size 20 ft. (length) x 16 ft. (width) x 8 ft. (ceiling height) = 2560 cu. ft. (volume of space)

If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Divide the space volume by 50 cubic feet to determine the maximum Btu/Hr the space can support.

_____ (volume of space) ÷ 50 cu. ft. = (maximum Btu/Hr the space can support)

Example: 2560 cu. ft. (volume of space) ÷ 50 cu. ft. = 51.2 or 51,200 (maximum Btu/Hr the space can support)

3. Add the Btu/Hr of all fuel burning appliances in the space.

Vent-free heater	_____	Btu/Hr
Gas water heater*	_____	Btu/Hr
Gas furnace	_____	Btu/Hr
Vented gas heater	_____	Btu/Hr
Gas fireplace logs	_____	Btu/Hr
Other gas appliances*	+ _____	Btu/Hr
Total	= _____	Btu/Hr

Example:

Gas water heater		40,000	Btu/Hr
Vent-free heater	+	30,000	Btu/Hr
Total	=	70,000	Btu/Hr

* Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.

_____ Btu/Hr (maximum the space can support)

_____ Btu/Hr (actual amount of Btu/Hr used)

Example: 51,200 Btu/Hr (maximum the space can support)
70,000 Btu/Hr (actual amount of Btu/Hr used)

The space in the above example is a confined space because the actual Btu/Hr used is more than the maximum Btu/Hr the space can support. You must provide additional fresh air.

Your options are as follows:

- A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See *Ventilation Air From Inside Building*, page 7.
- B. Vent room directly to the outdoors. See *Ventilation Air From Outdoors*, page 7.
- C. Install a lower Btu/Hr heater, if lower Btu/Hr size makes room unconfined.

If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

AIR FOR COMBUSTION AND VENTILATION

Continued

⚠ WARNING

If the area in which the heater may be operated is smaller than that defined as an unconfined space, provide adequate combustion and ventilation air by one of the methods described in the *National Fuel Gas Code, ANSI Z223.1, 1992, Section 5.3* or applicable local codes.

VENTILATION AIR

Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 2). You can also remove door into adjoining room (see option 3, Figure 2). Follow the *National Fuel Gas Code NFPA 54/ANSI Z223.1, Section 5.3, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

⚠ WARNING

Rework worksheet, adding the space of the adjoining unconfined space. The combined spaces must have enough fresh air to supply all appliances in both spaces.

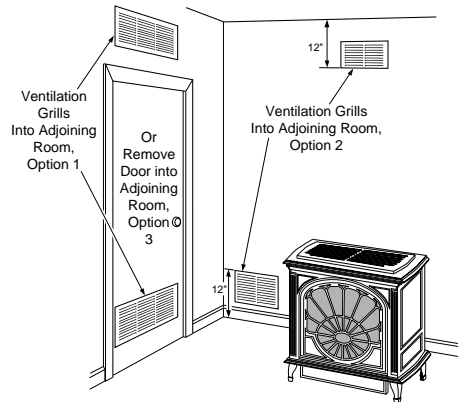


Figure 2 - Ventilation Air from Inside Building

Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces.

IMPORTANT: Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent.

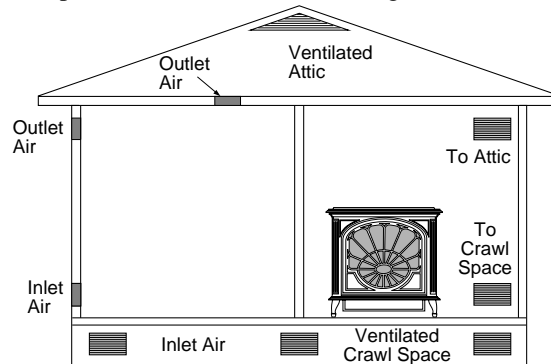


Figure 3 - Ventilation Air from Outdoors

INSTALLING

NOTICE

A qualified service person must install heater. Follow all local codes.

NOTICE

State or local codes may only allow operation of this appliance in a vented configuration. Check your state or local codes.

WARNING

Never install the heater

- in a bedroom or bathroom
- in a recreational vehicle
- where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the heater
- in high traffic areas
- in windy or drafty areas

CAUTION

This heater creates warm air currents. These currents move heat to wall surfaces next to heater. Installing heater next to vinyl or cloth wall coverings or operating heater where impurities in the air (such as tobacco smoke) exist, may discolor walls.

IMPORTANT: Vent-free heaters add moisture to the air. Although this is beneficial, installing heater in rooms without enough ventilation air may cause mildew to form from too much moisture. See *Air for Combustion and Ventilation*, pages 5 through 7.

CHECK GAS TYPE

Use only natural gas. If your gas supply is not natural gas, do not install heater. Call dealer where you bought heater for proper type heater.

CLEARANCES TO COMBUSTIBLES (Vent-Free Operation Only)

WARNING

Maintain the minimum clearances. If you can, provide greater clearances from floor, ceiling, and adjoining side and back walls.

Carefully follow the instructions below. This stove is a freestanding unit designed to set directly on the floor. *IMPORTANT:* You must maintain minimum wall and ceiling clearances during installation. The minimum clearances are shown in Figure 4, page 9. Measure from outermost point of stove top.

Minimum Wall and Ceiling Clearances (see Figure 4)

- A. Clearances from outermost point of stove top to any combustible side wall should not be less than 12 inches.
- B. Clearances from outermost point of stove top to any combustible back wall should not be less than 6 inches (Includes Corner Installations).
- C. Clearances from the stove top to the ceiling should not be less than 48 inches.

INSTALLING

Continued

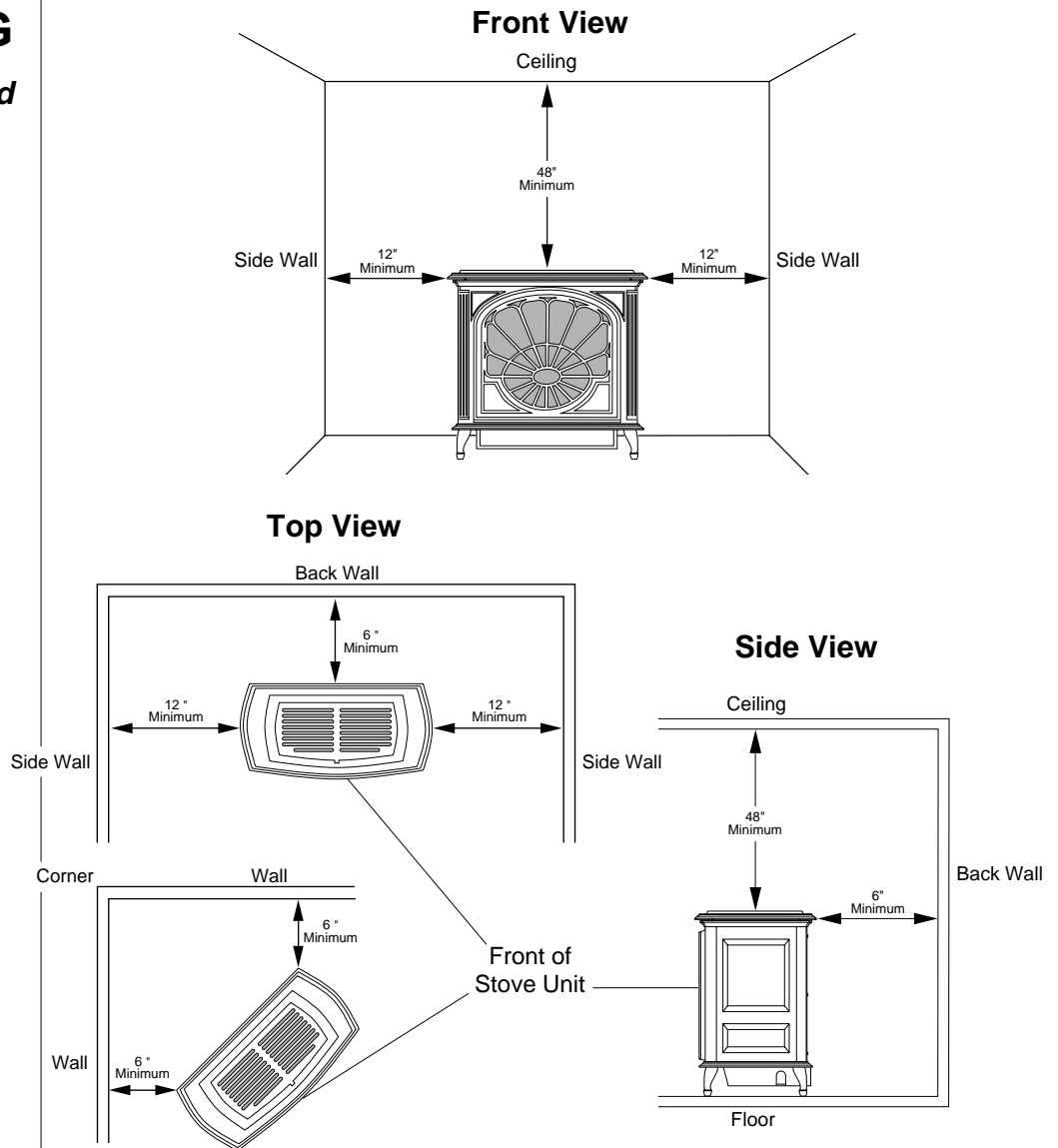


Figure 4 - Minimum Clearance to Walls and Ceiling

STOVE CAVITY ASSEMBLY

1. Lift off corrugated box enclosing stove body crating.
2. Remove all screws fastening the wood frame enclosure. Spread wood frame open and lift away from plastic-bagged stove body. The bottom pieces of pallet wood will remain bolted to the stove body.
3. Remove plastic bag from stove body.
4. Remove back panel from stove (see Figure 5). Use an adjustable wrench or a 10 mm socket. Remove six (6) bolts and washers. Keep bolts and washers to reattach back panel later.

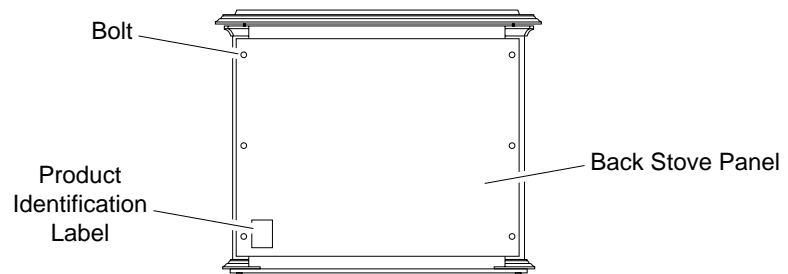


Figure 5 - Removing Back Panel

Continued

INSTALLING

Continued

5. Remove all contents from inside stove cavity. Contents include:
 - (1) - Stove bottom
 - (4) - Legs with leg leveler bolts
 - (1) - Bottom door
 - (1) - Top grate
 - (1) - Hardware kit bag with fasteners
6. Carefully lay stove body on back to attach bottom components to stove body (see Figure 6). Rest stove on drop cloth or blanket to avoid scratching stove edges.

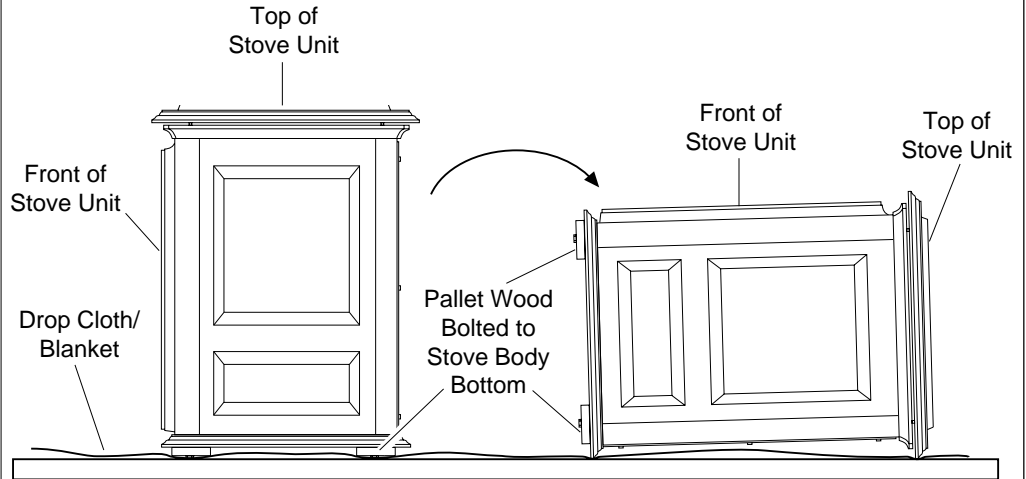


Figure 6 - Laying Down Stove On Side

7. Remove remaining pallet wood attached to bottom of stove body (see Figure 7). Use an adjustable wrench to remove bolts.

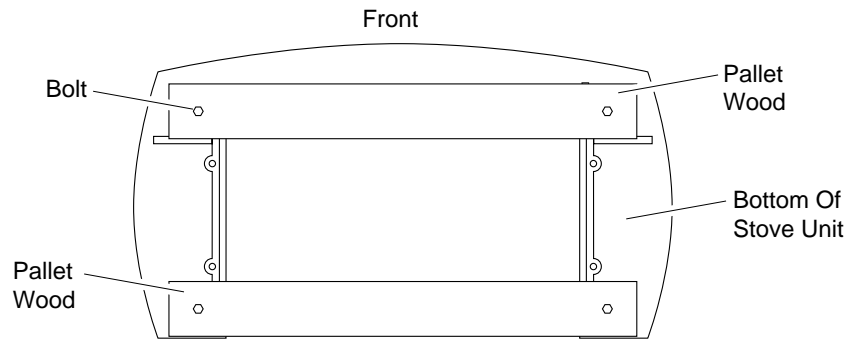


Figure 7 - Removing Pallet Wood From The Bottom of The Stove

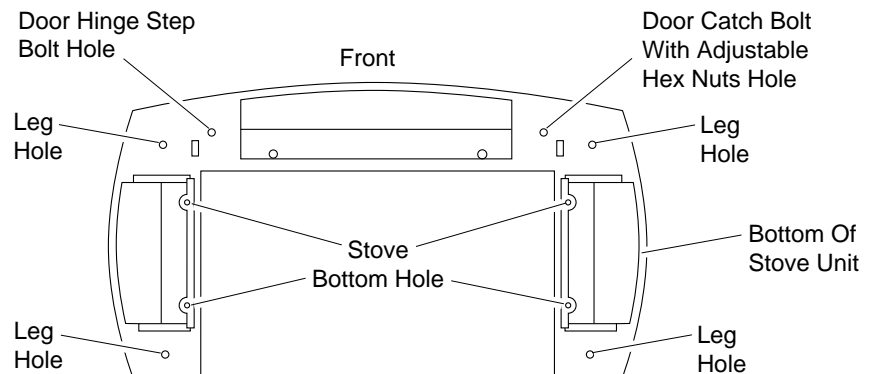


Figure 8 - Locating of Threaded Holes for Stove Bottom, Legs, and Door Attachment

INSTALLING

Continued

8. Fasten each leg to stove with four (4) M8 x 1.25 - 20mm bolts. Use a flat washer and lock washer with each bolt. Tighten bolts into threaded holes on stove body (see Figure 8 and 9). Use an adjustable wrench or a 12mm socket.

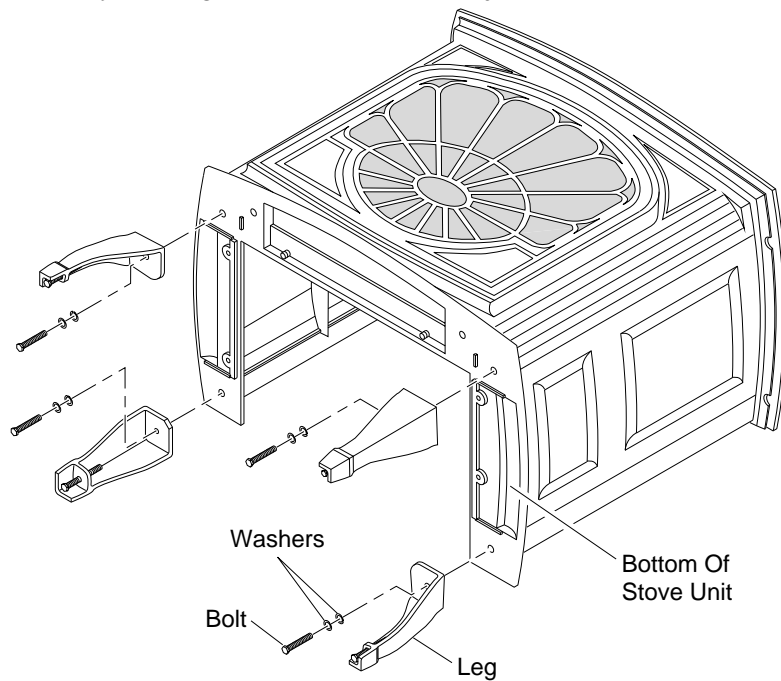


Figure 9 - Attaching Stove Legs

9. Fasten stove bottom to stove with four (4) M6 x 1 - 25mm bolts. Use a flat washer and lock washer with each bolt. Tighten bolts into threaded holes on stove body (see Figure 8 and 10). Use an adjustable wrench or a 10mm socket.

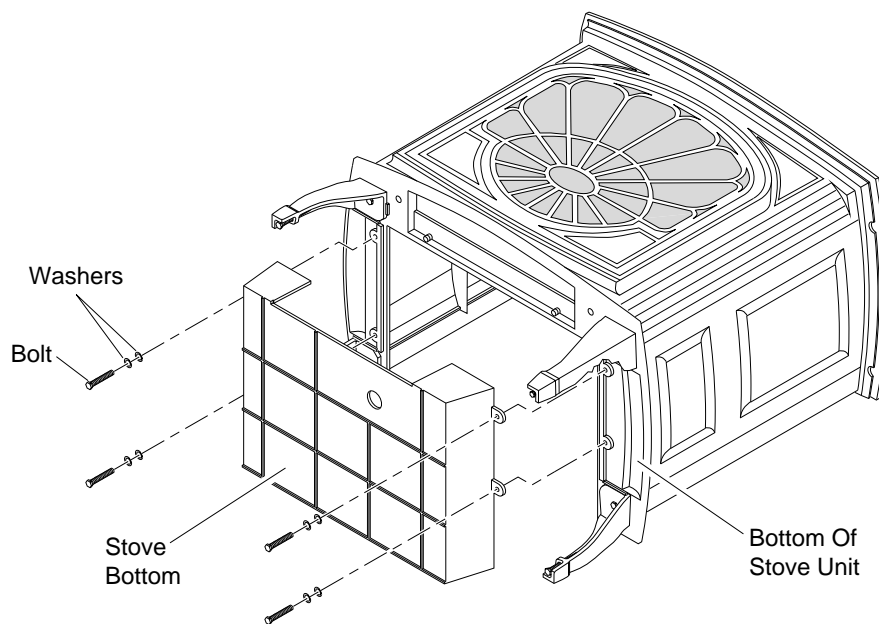


Figure 10 - Attaching Stove Bottom

Continued

INSTALLING

Continued

10. Attach stove door by inserting step bolt through door hinge pivot hole and into threaded hole in stove body (see Figure 8 and 11). Use an adjustable wrench or a 12mm socket to fasten step bolt. Tighten step bolt until snug. Make sure door moves freely.

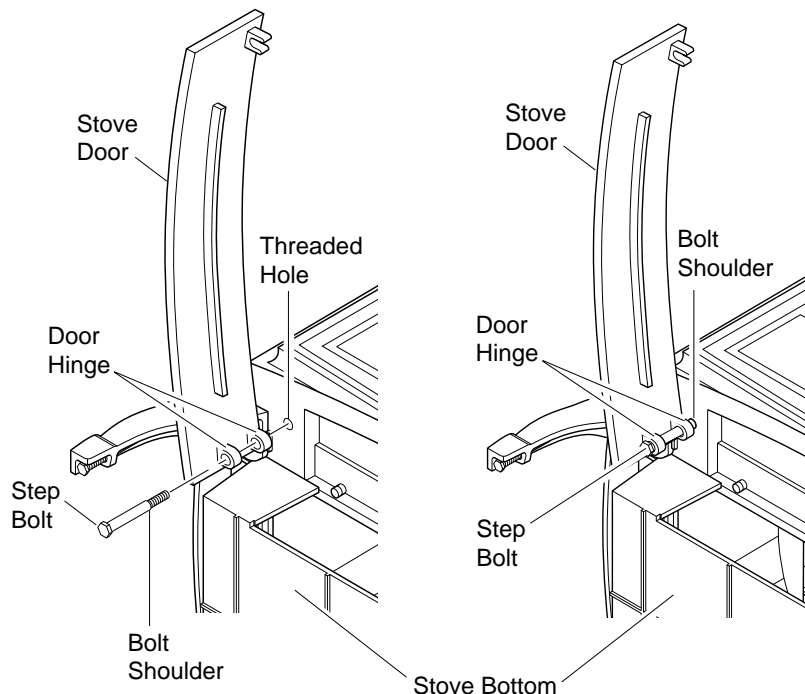


Figure 11 - Attaching Stove Door

11. Install door catch bolt (M8 x 1.25-55mm with two M8 hex nuts) into threaded hole on stove body (see Figure 8, page 10). Use an adjustable wrench or a 12mm socket. The catch bolt has two hex nuts attached to it (see Figure 12). The top nut is a bolt stop and the bottom nut is for door leveling adjustment.

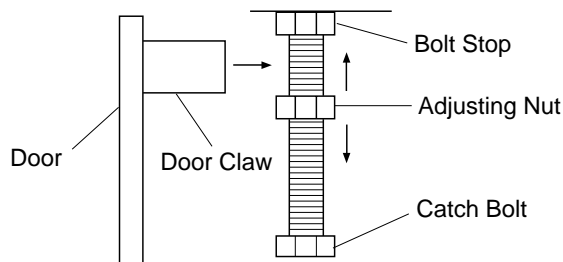


Figure 12 - Catch Bolt and Door Claw Orientation

12. Check general catch bolt alignment with door claw. Make final adjustment and door leveling after stove is in normal standing position.
13. Carefully lift stove back up on its four attached legs.
14. Set top grate into stove top.
15. If available, install gas log heater inside stove cavity before installing the back panel (see *Installing Gas Log Heater Into Stove* page 13).
16. Fasten back panel to stove with six (6) M6 x 1 - 20mm bolts and washers. Make sure product identification label is located on the outside in lower left-hand corner.

INSTALLING

Continued

INSTALLING GAS LOG HEATER INTO STOVE

1. Remove log and gas log heater from carton. *Note:* Do not pick up gas log heater by the burner itself. This could damage heater. Always handle the gas log heater by the heater base only.
2. Remove all protective packaging applied to log and gas log heater for shipment.
3. Check all items for any shipping damage. If damaged, promptly inform dealer where you bought heater.
4. If not already removed, remove back panel from assembled stove body (see Figure 5, page 9). Use an adjustable wrench or a 10 mm socket. Remove six (6) bolts and washers. Keep bolts and washers to reattach back panel later.
5. Set gas log heater inside stove. Make sure control knob extension passes through bottom front opening (see Figure 13).

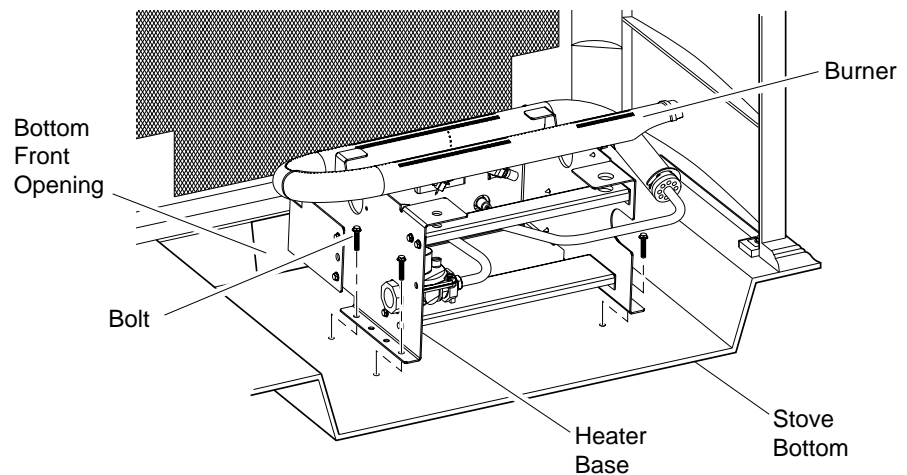


Figure 13 - Placing Heater Base In Stove Cavity

6. Align outside holes on heater base with four (4) mounting holes on the stove bottom (see Figure 13).
7. Fasten heater base to stove bottom with #10-24 x .50 bolts and hex nuts provided with gas log heater (see Figure 14). Attachment hardware is factory packed inside plastic bag with installation manual and owner's registration card. Push bolt through heater base mounting hole and through stove bottom. Connect hex nut to bolt on underside of stove bottom. The bolt hex head is for a 5/16" socket and the hex nuts are for a 3/8" socket. If sockets are not available, use adjustable wrenches.

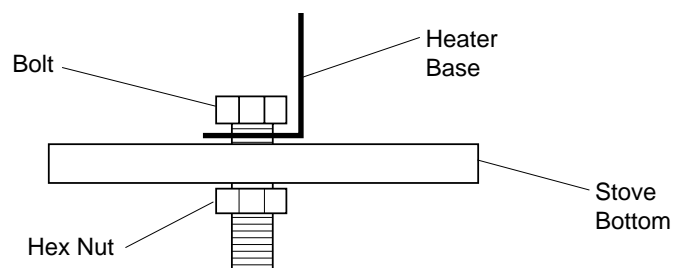


Figure 14 - Fastening Heater Base to Stove Drop Bottom

Continued

INSTALLING

Continued

- Set one-piece log on heater base as shown in Figure 15. Make sure middle section at bottom of log is seated into "U" shaped cutout in center of heater base. Log will fit securely on base. **IMPORTANT:** Make sure log does not cover any burner ports and does not touch the stove cavity (see Figure 16).

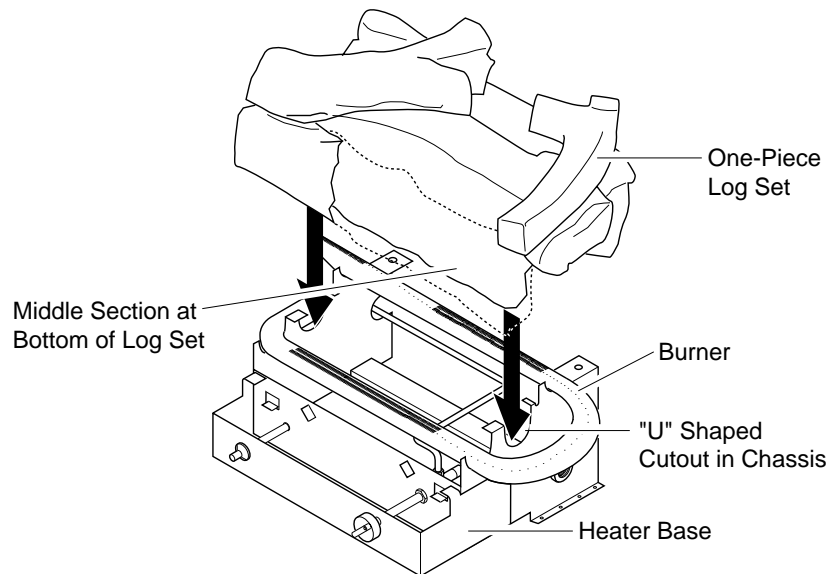


Figure 15 - Installing One-Piece Stove Log Set

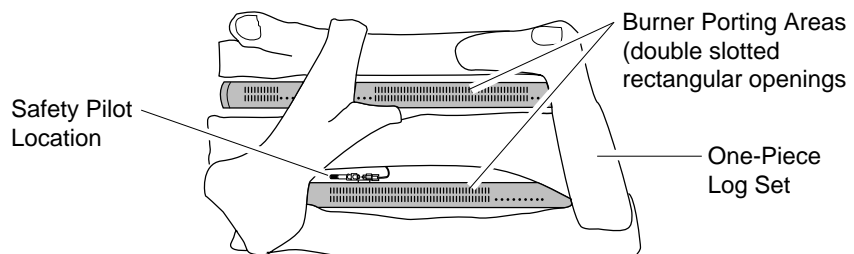


Figure 16 - Top View of One-Piece Log Set on Gas Log Heater

- Fasten back panel to stove with six (6) M6 x 1.20mm bolts and washers. Make sure product identification label is located on the outside lower left-hand corner.
- Place freestanding stove in desired position in room. Be sure to maintain clearances to combustibles as outlined on page 8.

CONNECTING TO GAS SUPPLY

NOTICE

A qualified service person must connect heater to gas supply. Follow all local codes.

Installation Items Needed

Before installing heater, make sure you have the items listed below.

- piping (check local codes)
- sealant (resistant to LP gas)
- manual shutoff valve *
- test gauge connection *
- sediment trap
- tee joint
- pipe wrench

INSTALLING

Continued

* An A.G.A. design-certified manual shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the optional A.G.A. design-certified manual shutoff valve from your dealer. See *Accessory*, page 30.

The gas regulator for the stove heater is located on the lower right-hand side of the stove when viewed from the front of the unit. The gas connection can be made either through the bottom right side or through the lower back opening as illustrated in Figure 17. Make sure gas log heater is secured to the stove cavity assembly.

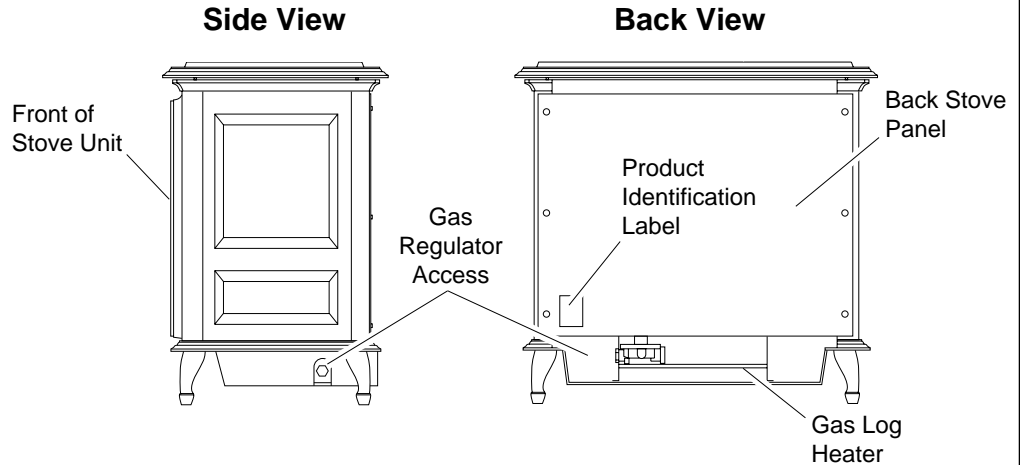


Figure 17 - Gas Regulator Location and Gas Line Access Into Stove Cabinet

⚠ WARNING

Never connect heater to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

⚠ CAUTION

Use only new, black iron or steel pipe. Internally-tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to heater. If pipe is too small, undue loss of pressure will occur.

Installation must include a manual shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from heater (see Figure 18, page 16).

Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged heater valves.

⚠ CAUTION

Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

Install sediment trap in supply line as shown in Figure 18, page 16. Locate sediment trap where it is within reach for cleaning. Locate sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into heater controls. If sediment trap is not installed or is installed wrong, heater may not run properly.

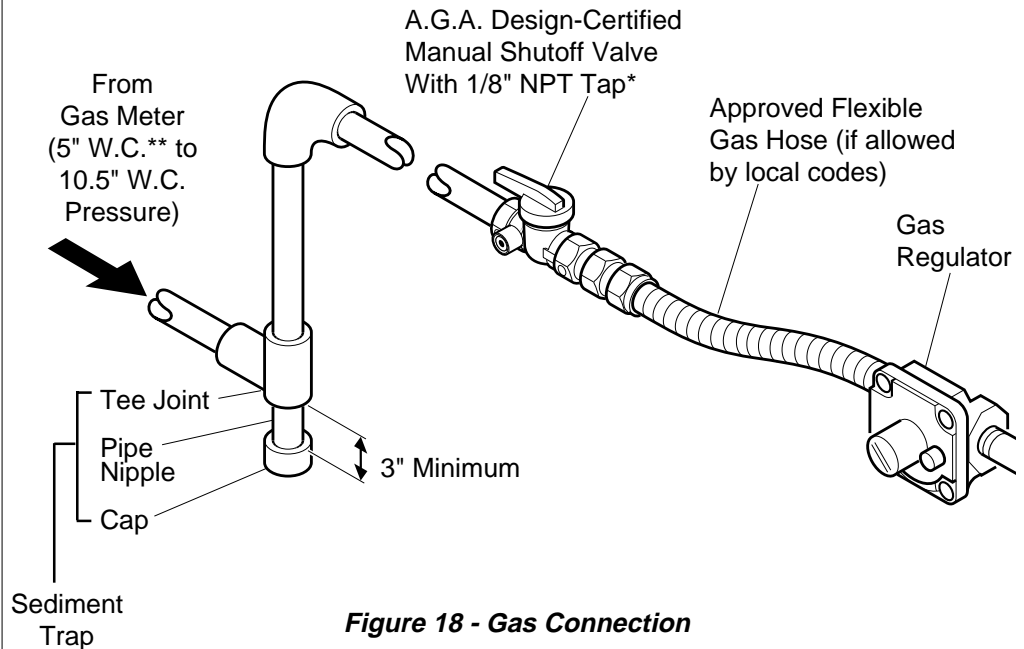
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INSTALLING

Continued

⚠ CAUTION

Avoid damage to regulator. Hold gas regulator with wrench when connecting it to gas piping and/or fittings.



* Purchase the optional A.G.A. design-certified manual shutoff valve from your dealer. See *Accessory*, page 30.

** Minimum inlet pressure for purpose of input adjustment.

CHECKING GAS CONNECTIONS

⚠ WARNING

Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once.

⚠ WARNING

Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak. Correct all leaks at once.

Pressure Testing Gas Supply Piping System

Test Pressures In Excess Of 1/2 PSIG

1. Disconnect heater and its individual manual shutoff valve from gas supply piping system. Pressures in excess of 1/2 psig will damage heater regulator.
2. Cap off open end of gas pipe where manual shutoff valve was connected.
3. Pressurize supply piping system by either using compressed air or opening main gas valve located on or near gas meter.
4. Check all joints of gas supply piping system. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Reconnect heater and manual shutoff valve to gas supply. Check reconnected fittings for leaks.

INSTALLING

Continued

Test Pressures Equal To or Less Than 1/2 PSIG

1. Close manual shutoff valve (see Figure 19).
2. Pressurize supply piping system by either using compressed air or opening main gas valve located on or near gas meter.
3. Check all joints from gas meter to manual shutoff valve (see Figure 20). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
4. Correct all leaks at once.

Pressure Testing Heater Gas Connections

1. Open manual shutoff valve (see Figure 19).
2. Open main gas valve located on or near gas meter.
3. Make sure control knob of heater is in the OFF position.
4. Check all joints from manual shutoff valve to control valve (see Figure 20). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light heater (see *Operating Heater*, pages 18 through 20). Check all other internal joints for leaks.
7. Turn off heater (see *To Turn Off Gas to Appliance*, page 20).

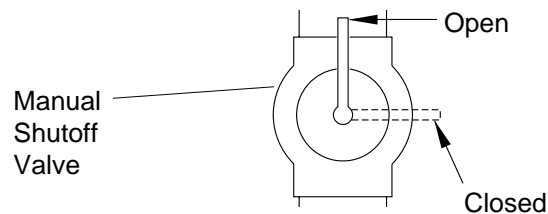


Figure 19 - Manual Shutoff Valve

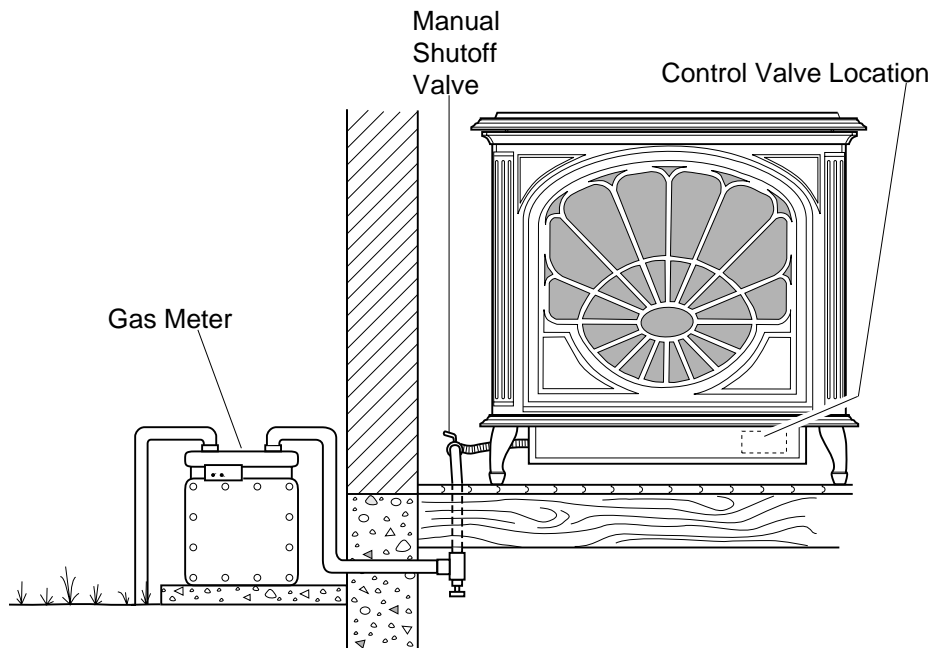


Figure 20 - Checking Gas Joints

OPERATING HEATER

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING


If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician or gas supplier. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

NOTICE

During initial operation of new heater, burning logs will give off a paper-burning smell. Open damper or window to vent smell. This will only last a few hours.

1. **STOP!** Read the safety information above.
2. Make sure manual shutoff valve is fully open.
3. Press in and turn control knob clockwise  to the OFF position.

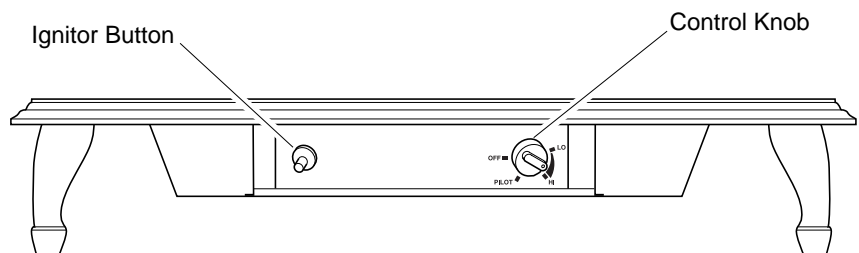



Figure 21 - Control Knob and Ignitor Button Location

OPERATING HEATER

Continued

4. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow “B” in the safety information on page 18 . If you don’t smell gas, go to the next step.
5. Slightly depress and turn control knob counterclockwise  to the PILOT position. Keep control knob pressed in for five (5) seconds (see Figure 21, page 18).
Note: You may be running this heater for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds. This will allow air to bleed from the gas system.
6. With control knob pressed in, press and release ignitor button. This will light pilot. The pilot is attached to the burner (see Figure 16, page 14). If needed, keep pressing ignitor button until pilot lights.
Note: If pilot does not light, contact a qualified service person or gas supplier for repairs. Until repairs are made, light pilot with match. To light pilot with match, see *Manual Lighting Procedure* on page 20.
7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.
Note: If pilot goes out, repeat steps 3 through 7.
 - If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.

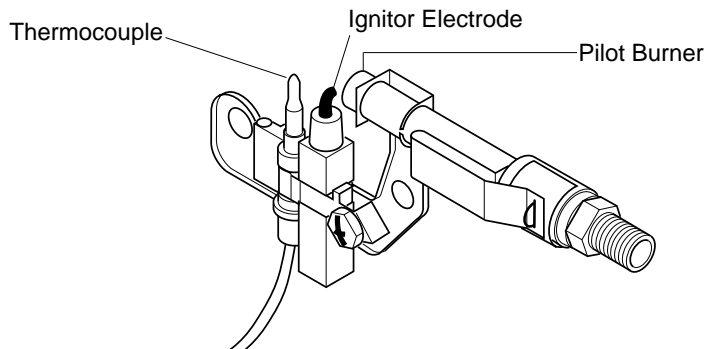



Figure 22 - Pilot

8. Slightly depress and turn control knob counterclockwise  to the HIGH position. The burner should light. Set control knob to any heat level between HIGH and LO.

VARIABLE CONTROL OPERATION

The variable control valve can be set to any heat setting and flame height desired, by simply turning the control knob until that setting is attained. Even the lowest setting provides realistic, dancing yellow flames. Selecting higher settings produces greater heat output. This results in increased heating comfort.

WARNING

Do not operate heater between PILOT and HIGH positions.

CAUTION

Do not try to adjust heating levels by using the manual shutoff valve.

Continued




OPERATING HEATER

Continued



INSPECTING BURNERS

TO TURN OFF GAS TO APPLIANCE

Shutting Off Heater

1. Press in and turn control knob clockwise  to the HIGH position.
2. Turn the control knob clockwise  to the PILOT position.
3. Press in control knob and turn clockwise  to the OFF Position.

Shutting Off Burners Only (pilot stays lit)

1. Turn the control knob clockwise  to the HIGH position.
2. Press in and turn control knob clockwise  to the PILOT position.

MANUAL LIGHTING PROCEDURE

1. Follow steps 1 through 5 under *Lighting Instructions*, pages 18 and 19.
2. Pilot is located inside stove cavity attached to burner. Lift off top grate to allow access to pilot.
3. Depress control knob and light pilot with match.
4. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.
5. Place top grate back into position. Now follow step 8, page 19.

Check pilot flame pattern and burner flame patterns often.

PILOT FLAME PATTERN

Figure 23 shows a correct pilot flame pattern. Figure 24 shows an incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool. When the thermocouple cools, the heater will shut down.

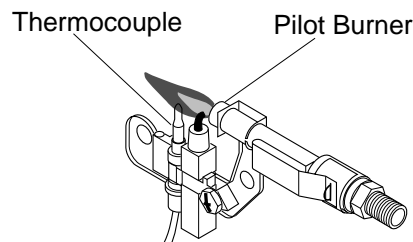


Figure 23 - Correct Pilot Flame Pattern

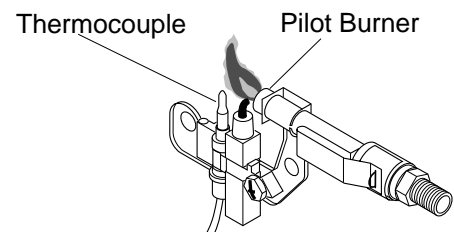


Figure 24 - Incorrect Pilot Flame Pattern

If pilot flame pattern is incorrect, as shown in Figure 24

- turn heater off (see *To Turn Off Gas to Appliance*, above)
- see *Troubleshooting*, pages 21 through 24

CLEANING AND MAINTENANCE

TROUBLE- SHOOTING

Note: All troubleshooting items are listed in order of operation.

WARNING

Turn off heater and let cool before cleaning.

CAUTION

You must keep control areas, burner, and circulating air passages of heater clean. Inspect these areas of heater before each use. Have heater inspected yearly by a qualified service person. Heater may need more frequent cleaning due to excessive lint from carpeting, bedding material, etc.

ODS/PILOT AND BURNER

- Use a vacuum cleaner or small, soft bristled brush to clean.

LOGS

- Replace log(s) if broken or chipped (dime-sized or larger).

WARNING

Turn off heater and let cool before servicing. Only a qualified service person should service and repair heater.

CAUTION

Never use a wire, needle, or similar object to clean ODS/pilot. This can damage ODS/pilot unit.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at ODS/pilot	1. Ignitor electrode not connected to ignitor cable	1. Reconnect ignitor cable
	2. Ignitor cable pinched or wet	2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry
	3. Piezo ignitor nut is loose	3. Tighten nut holding piezo ignitor to base panel of log set. Nut is located behind base panel.
	4. Broken ignitor cable	4. Replace ignitor cable
	5. Bad piezo ignitor	5. Replace piezo ignitor
	6. Ignitor electrode positioned wrong	6. Replace ignitor
	7. Ignitor electrode broken	7. Replace ignitor

Continued

TROUBLE-SHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is spark at ODS/pilot but no ignition	<ol style="list-style-type: none"> 1. Gas supply turned off or manual shutoff valve closed 2. Control knob not in PILOT position 3. Control knob not pressed in while in PILOT position 4. Air in gas lines when installed 5. ODS/pilot is clogged 6. Gas regulator setting is not correct 	<ol style="list-style-type: none"> 1. Turn on gas supply or open manual shutoff valve 2. Turn control knob to PILOT position 3. Press in control knob while in PILOT position 4. Continue holding down control knob. Repeat igniting operation until air is removed 5. Clean ODS/pilot (see <i>Cleaning and Maintenance</i>, page 21) or replace ODS/pilot assembly 6. Replace gas regulator
ODS/pilot lights but flame goes out when control knob is released	<ol style="list-style-type: none"> 1. Control knob not fully pressed in 2. Control knob not pressed in long enough 3. Safety interlock system has been triggered 4. Manual shutoff valve not fully open 5. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by one or both of the following: A) Low gas pressure B) Dirty or partially clogged ODS/pilot 6. Thermocouple connection loose at control valve 7. Thermocouple damaged 8. Control valve damaged 	<ol style="list-style-type: none"> 1. Press in control knob fully 2. After ODS/pilot lights, keep control knob pressed in 30 seconds 3. Wait one minute for safety interlock system to reset. Repeat ignition operation 4. Fully open manual shut-off valve 5. A) Contact local natural gas company B) Clean ODS/pilot (see <i>Cleaning and Maintenance</i>, page 21) or replace ODS/pilot assembly 6. Hand tighten until snug, then tighten 1/4 turn more 7. Replace thermocouple 8. Replace control valve

TROUBLE-SHOOTING

Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Burner does not light after ODS/pilot is lit	<ol style="list-style-type: none"> 1. Inlet gas pressure is too low 2. Burner orifice clogged 3. Burner orifice diameter is too small 	<ol style="list-style-type: none"> 1. Contact local natural gas company 2. Clean burner (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice 3. Replace burner orifice
Delayed ignition burner	<ol style="list-style-type: none"> 1. Manifold pressure is too low 2. Burner orifice clogged 	<ol style="list-style-type: none"> 1. Contact local natural gas company 2. Clean burner (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice
Burner backfiring during combustion	<ol style="list-style-type: none"> 1. Burner orifice is clogged or damaged 2. Damaged burner 3. Gas regulator defective 	<ol style="list-style-type: none"> 1. Clean burner (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice 2. Replace damaged burner 3. Replace gas regulator
Slight smoke or odor during initial operation	<ol style="list-style-type: none"> 1. Not enough air 2. Gas regulator defective 3. Residues from manufacturing processes and logs curing 	<ol style="list-style-type: none"> 1. Check burner for dirt and debris. If found, clean burner (see <i>Cleaning and Maintenance</i>, page 21) 2. Replace gas regulator 3. Problem will stop after a few hours of operation
Heater produces a whistling noise when burner is lit	<ol style="list-style-type: none"> 1. Turning control knob to HI position when burner is cold 2. Air in gas line 3. Air passageways on heater blocked 4. Dirty or partially clogged burner orifice 	<ol style="list-style-type: none"> 1. Turn control knob to LO position and let warm up for a minute 2. Operate burner until air is removed from line. Have gas line checked by local natural gas company 3. Observe minimum installation clearances (see pages 8-9) 4. Clean burners (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice
Moisture/condensation noticed on windows	<ol style="list-style-type: none"> 1. Not enough combustion/ventilation air 	<ol style="list-style-type: none"> 1. Refer to <i>Air for Combustion and Ventilation</i> requirements (pages 5-7)

Continued

TROUBLE-SHOOTING

Continued

WARNING

If you smell gas

- Shut off gas supply.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

IMPORTANT: Operating heater where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors. These odors will disappear over time.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Heater produces a clicking/ticking noise just after burner is lit or shut off	1. Metal expanding while heating or contracting while cooling	1. This is common with most heaters. If noise is excessive, contact qualified service person
Heater produces unwanted odors	1. Heater burning vapors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (See IMPORTANT statement above) 2. Gas leak. See Warning statement at top of page	1. Open window and ventilate room. Stop using odor causing products while heater is running 2. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 16)
Heater shuts off in use (ODS operates)	1. Not enough fresh air is available 2. Low line pressure 3. ODS/pilot is partially clogged	1. Open window and/or door for ventilation 2. Contact local natural gas company 3. Clean ODS/pilot (see <i>Cleaning and Maintenance</i> , page 21)
Gas odor even when control knob is in OFF position	1. Gas leak. See Warning statement at top of page 2. Control valve defective	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 16) 2. Replace control valve
Gas odor during combustion	1. Foreign matter between control valve and burner 2. Gas leak. See Warning statement at top of page	1. Take apart gas tubing and remove foreign matter 2. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 16)

TECHNICAL SERVICE SPECIFICATIONS

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA International's Technical Service Department at 1-800-DESA LOG (1-800-337-2564).

Amity™ Stove Gas Log Heater Model SVYD18N Variable Manually Controlled

Btu (Variable)	16,000/30,000
Type Gas	Natural Gas Only
Ignition	Piezo
Pressure Manifold	3.5" W.C.
Inlet Gas Pressure (in. of water)	
Maximum	10.5"
Minimum*	5"

* For input adjustment

Shipping Weight 28 lbs.

Amity™ Stove Cabinet Model SCIVF(*)

Shipping Weight 195 lbs.

(* Indicates Color Suffix Designation)

SERVICE HINTS

When gas pressure is too low

- pilot will not stay lit
- burners will have delayed ignition
- heater will not produce specified heat

When gas quality is bad

- pilot will not stay lit
- burners will produce flames and soot
- heater will backfire when lit

You may feel your gas pressure is too low or gas quality is bad. If so, contact your local natural gas supplier.

REPLACEMENT PARTS

Note: Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

Parts Under Warranty

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA International's Technical Service Department at 1-800-323-5190. When calling DESA International, have ready

- your name and address
- model number of your heater
- how heater was malfunctioning
- type of gas used (propane or natural gas)
- purchase date

Usually, we will ask you to return the defective part to the factory.

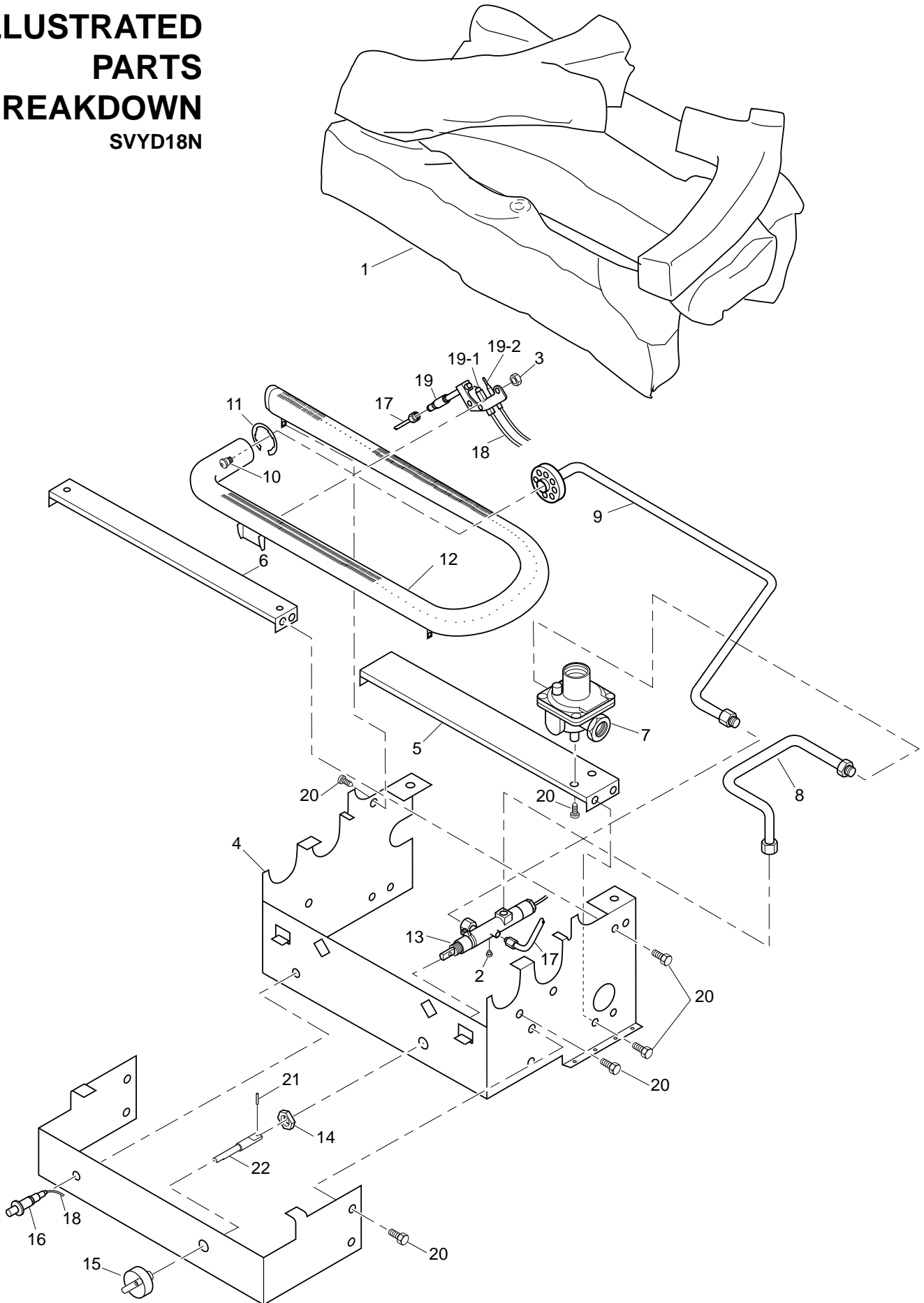
Parts Not Under Warranty

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA International's Parts Department at 1-800-972-7879 for referral information. When calling DESA International, have ready

- model number of your heater
- the replacement part number

ILLUSTRATED PARTS BREAKDOWN

SVYD18N



PARTS LIST

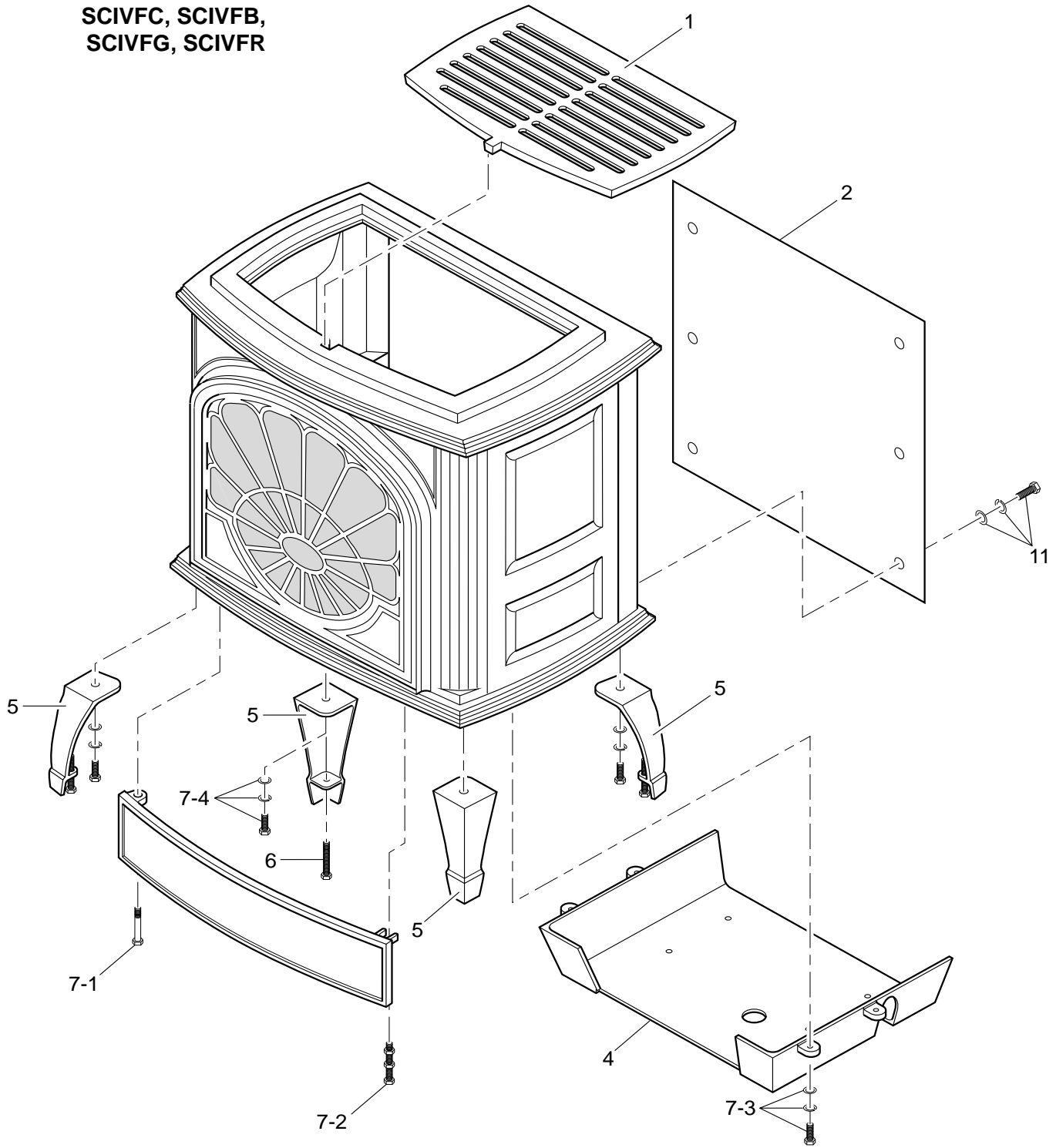
SVYD18N

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under *Replacement Parts* on page 25 of this manual.

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	104026-01	Stove Log	1
2	098276-01	Hex Head Plug, 1/8" NPT	1
3	098249-01	Nut, M5	2
4	102776-05CK	Painted Base Assembly	1
5	102844-02	Lower Bracket	1
6	102966-02	Upper Bracket	1
7	098867-11	Gas Regulator	1
8	102798-01	Inlet Tube	1
9	102779-03	Outlet Burner Tube	1
10	099056-26	Burner Orifice Injector	1
11	102843-01	Burner Clip	1
12	102980-01	Burner	1
13	102568-07	Control Valve	1
14	098508-01	Valve Retainer Nut	1
15	099393-03	Control Knob	1
16	102445-01	Piezo Ignitor	1
17	099387-08	Pilot Tube	1
18	098271-07	Ignitor Cable	1
19	103042-01	ODS Pilot	1
19-1	098594-01	Ignitor Electrode	1
19-2	098593-01	Thermocouple	1
20	M11084-38	Screw, Hex Head (#8-18 x .38)	15
21	098325-01	Roll Pin	1
22	098462-04	Control Rod Assembly	1
23	104055-01CK	Extension Base	1
PARTS AVAILABLE — NOT SHOWN			
	100563-01	Warning Plate	1
	101055-02	Lighting Instructions Plate	1
	100565-01	Warning Plate Fastener	1
	101449-06	Control Position Decal	1
	M12461-71	Screw, Hex Head #10-24 x .50 - Mounting	4
	NPC-3C	Hex Nut, #10-24 - Mounting	4
	101416-36	Information Video	1

ILLUSTRATED PARTS BREAKDOWN

SCIVFC, SCIVFB,
SCIVFG, SCIVFR



PARTS LIST

SCIVFC, SCIVFB,
SCIVFG, SCIVFR

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under *Replacement Parts* on page 25 of this manual.

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	104171-01	Top Grate with Screen (Black Only)	1
2	104172-01	Stove Back Panel (Black Only)	1
3	104173-01	Bottom Door (Charcoal)	1
	104173-02	Bottom Door (Azure Blue)	1
	104173-03	Bottom Door (Hunter Green)	1
	104173-04	Bottom Door (Burgundy Red)	1
4	104174-01	Stove Dropped Bottom	1
5	104175-01	One Leg (Charcoal) (4 Total Per Stove)	1
	104175-02	One Leg (Azure Blue) (4 Total Per Stove)	1
	104175-03	One Leg (Hunter Green) (4 Total Per Stove)	1
	104175-04	One Leg (Burgundy Red) (4 Total Per Stove)	1
6	104176-01	Leg Leveler Bolt M8 x 1.25 - 55mm Long (4 Total Per Stove)	1
7	104177-01	Hardware Kit	1
7-1	*	Door Hinge Step Bolt With Shoulder (1 Per Unit)	1
7-2	*	Door Catch Bolt M8 x 1.25 - 55mm Long With Two M8 Hex Nuts (1 Per Unit)	1
7-3	*	Bottom Floor Bolts M6 x 1 - 25mm Long With Flat Washer And Lock Washer (4 Per Unit)	1
7-4	*	Leg Bolts M6 x 1.25 - 20mm Long With Flat Washer And Lock Washer (4 Per Unit)	1
11	104178-01	Back Panel Bolts M6 x 1 - 20mm Long With Flat Washer And Lock Washer (6 Per Unit)	1
PARTS AVAILABLE — NOT SHOWN			
	104108-01	Touch-up Spray Paint 12 oz Can (Charcoal)	1
	104108-02	Touch-up Spray Paint 12 oz Can (Azure Blue)	1
	104108-03	Touch-up Spray Paint 12 oz Can (Hunter Green)	1
	104108-04	Touch-up Spray Paint 12 oz Can (Burgundy Red)	1

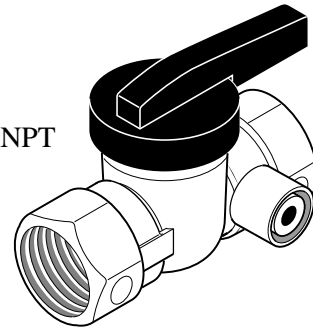
* Included In Hardware Kit

ACCESSORY

Purchase these heater accessories from your local dealer. If they can not supply these accessories, call DESA International's Parts Department at 1-800-972-7879 for referral information. You can also write to the address listed on the back page of this manual.

MANUAL SHUTOFF VALVE - GA5010

For all models. Manual shutoff valve with 1/8" NPT tap. Fits 1/2" NPT pipe.



WARRANTY INFORMATION

KEEP THIS WARRANTY

Model _____

Serial No. _____

Date Purchased _____

Always specify model and serial numbers when communicating with the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

LIMITED WARRANTY VENT-FREE NATURAL GAS LOG HEATERS AND AMITY™ STOVE CHASSIS

DESA International warrants this product to be free from defects in materials and components for three (3) years from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers the cost of part(s) required to restore this heater to proper operating condition and an allowance for labor when provided by a DESA Authorized Service Center. Warranty part(s) MUST be obtained through authorized dealers of this product and/or DESA International who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THREE (3) YEARS ON ALL COMPONENTS FROM THE DATE OF FIRST PURCHASE; AND DESA INTERNATIONAL'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA INTERNATIONAL SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow a limitation on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranties, or exclusion or limitation on damages may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For information about this warranty write:



104024 01

NOT A UPC

DESA
INTERNATIONAL

2701 Industrial Drive
P.O. Box 90004
Bowling Green, KY 42102-9004

104024-01
Rev. B
8/97